

**Nomination  
Of the  
HMAS *DIAMANTINA*  
For  
ENGINEERING HERITAGE RECOGNITION  
Under  
Engineering Heritage Australia's  
Heritage Recognition Programme**



**Submitted by:**

**Engineering Heritage Queensland Panel**

**Prepared for E.H.Q. by Panel Member**

**Paul D. Coghlan**

**Based on the book "HMAS DIAMANTINA"**

**Written by Peter Nunan**

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## **BASIC DATA**

|  |  |
|--|--|
| <b><u>Item Name:</u></b>               | <b>HMAS <i>DIAMANTINA</i></b>  |
| <b><u>Location:</u></b>                | <b>South Brisbane Dry Dock</b>   |
| <b><u>City:</u></b>                    | <b>Brisbane</b>  |
| <b><u>State:</u></b>                   | <b>Queensland</b>  |
| <b><u>Local Government Area:</u></b>   | <b>Brisbane City Council</b>   |
| <b><u>Owner:</u></b>                   | <b>Present Owner: Queensland Maritime Museum</b><br><b>Original Owner: Royal Australian Navy</b> |
| <b><u>Current Use:</u></b>             | <b>Maintained in Dry Dock for Public Inspection</b>  |
| <b><u>Design:</u></b>                  | <b>British Royal Navy River Class Frigate</b>  |
| <b><u>Builders:</u></b>                | <b>Walker's Limited, Maryborough, Qld.</b>   |
| <b><u>Year Built:</u></b>              | <b>1943-44</b>   |
| <b><u>Physical Description:</u></b>    | <b>Steel Built Frigate</b>   |
| <b><u>Physical Condition:</u></b>      | <b>Well maintained</b>   |
| <b><u>Modification &amp; Date:</u></b> | <b>Modified from Fighting Ship to</b><br><b>Ocean Research Vessel - 1959</b>                     |
| <b><u>Heritage Listing:</u></b>        | <b>Nil</b>   |

## **HMAS DIAMANTINA**

### **THE LAST SURVIVOR OF RIVER CLASS FRIGATES BUILT IN AUSTRALIA IN WW11**

#### **HISTORY**

HMAS *Diamantina* was an exceptional ship. Built in a country town for the front line action in World War II, she held the honour of hosting three surrender ceremonies at the end of the Pacific War. Many years later she began a new life of scientific research of the ocean depth along with more varied naval tasks. *Diamantina* finally retired, the last of her illustrious class, after 35 years, when in August, 1980 she was gifted to the Queensland Maritime Museum.

HMAS *Diamantina* is the largest surviving vessel which served in the Royal Australian Navy during World War II.

HMAS *Diamantina* was the twenty-fifth of the sixty-nine (69) vessels built by Walkers Limited in Maryborough, Queensland, (see appendix IV) in periods between 1877 and 1974. Outbreak of war in 1939 triggered the ship yards reopening. Between 1941 and December 1944, seven (7) Minesweepers followed by three (3) River Class Frigates were built and outfitted by Walkers. Engines, generators and boilers were also fabricated. The *Diamantina* was the second frigate launched on April 6, 1944 and commissioned on April 27, 1945.

All frigates built in Australia during the war were named after Australian rivers. HMAS *Diamantina* was named after the Diamantina River in western Queensland northwest of Longreach flowing with occasional floods into Lake Eyre via Georgina and Warburton Rivers.

*Diamantina* was the senior ship of RAN vessels supporting 11 Australian Corps Bougainville campaigns, and took part in three (3) surrender ceremonies in the Pacific Islands, including two (2) on the ship. The ship was placed in Reserve in August, 1946.

HMAS *Diamantina* was commissioned for a second time in the Royal Australian Navy. Based mainly in Fremantle, West Australia, she spent the next twenty (20) years in oceanographic research both for military and civilian purposes. She was decommissioned on February 29, 1980, after which she was gifted to the Queensland Maritime Museum (see chapter *Diamantina* comes home)

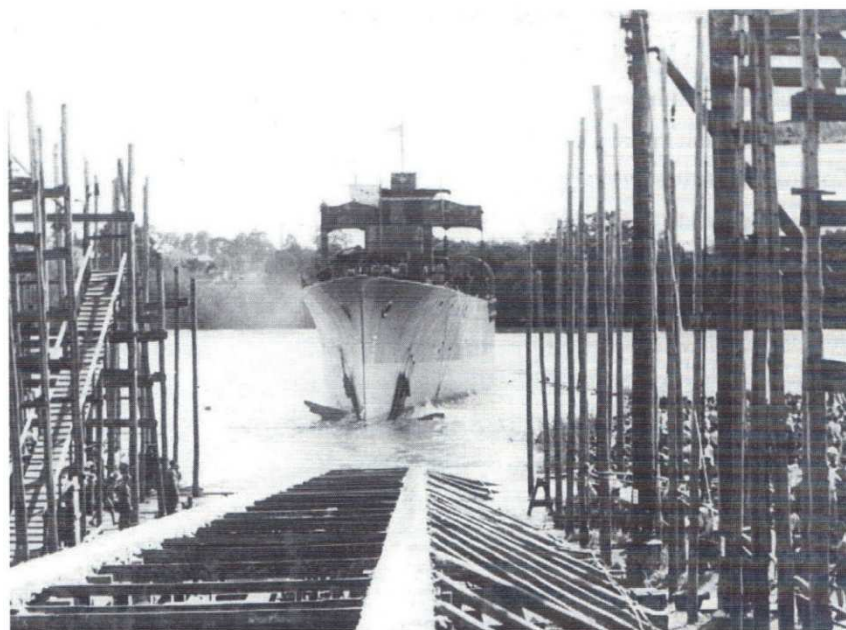
### **GENERAL INFORMATION**

*Diamantina* is a steel vessel of riveted construction. She was designed as an anti-submarine frigate on the plans of British Royal Navy River Class Frigates with minor variations.

|                 |  |
|-----------------|--|
| CLASS:          | River Class                              |
| TYPE:           | Frigate/Oceanographic Research Ship      |
| PENNANT:        | K 377 /F377/ A 266/ GOR266               |
| BUILDER:        | Walkers Limited, Maryborough, Queensland |
| LAID DOWN:      | April 12, 1943                           |
| LAUNCHED:       | April 6, 1944                            |
| COMMISSIONED:   | April 27, 1945                           |
| DECOMMISSIONED: | August 9, 1946                           |
| BATTLE HONOURS: | Pacific 1941 – 45                        |
| RECOMMISSIONED: | June 22, 1959                            |
| DECOMMISSIONED: | February 21, 1980                        |

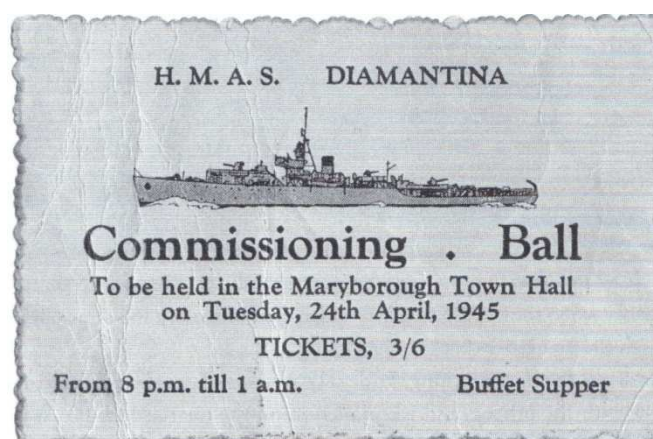
## PUBLIC AWARENESS AND COMMISSIONING

The ship was launched into the Mary River, in Maryborough, on April 6, 1944 by Mrs. Riordan, wife of Chairman of Committee House of Representatives, later Minister for Navy. Crew assembled under its first Captain, Lieutenant Commander M.G. Rose, an experienced officer. The most junior officer Sub-Lt Ian Parkin was only eleven (11) months out of school and two (2) months in the navy. The first Engineer Officer was Lieutenant Commander Ken Bull.



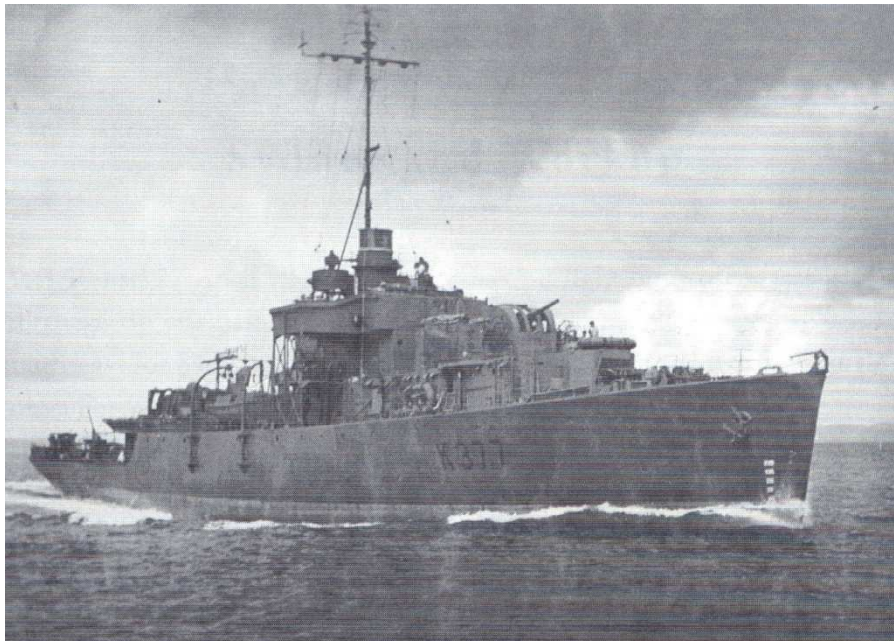
*Diamantina takes to the Mary River – 6 April 1944. (Walkers)*

A Commissioning Ball was held in Maryborough Town Hall on Tuesday 24 April, 1945 with Lord Mayor and Mayoress; Ship's Officers and 500 guests. For Anzac Day, Lieutenant Commander Rose was on the saluting base for his crew leading the March Past. In the afternoon the ship was open for inspection to the public who built the ship. Lieutenant Commander Rose considered half the town population attended.



*Commissioning Ball ticket (Queensland Maritime Museum collection)*

Next morning the ship was guided by a local pilot down the Mary River to Hervey Bay, Queensland, on high water spring tide with a 30cm underwater clearance for preliminary sea trials. For two (2) months, commencing the February 27, 1945, tests and trials were held on Hervey Bay by Walkers men and Navy Engineers before commissioning.



Trials in Hervey Bay, April 1945, with Hedgehog uncovered on the foredeck (Walkers)

On Friday April 27, 1945, anchored at Tyroom Roads with Officers and Men fallen in on the Quarterdeck, the White Ensign was hoisted and Lieutenant Commander Rose commissioned the ship. The ship then sailed to Sydney, New South Wales.

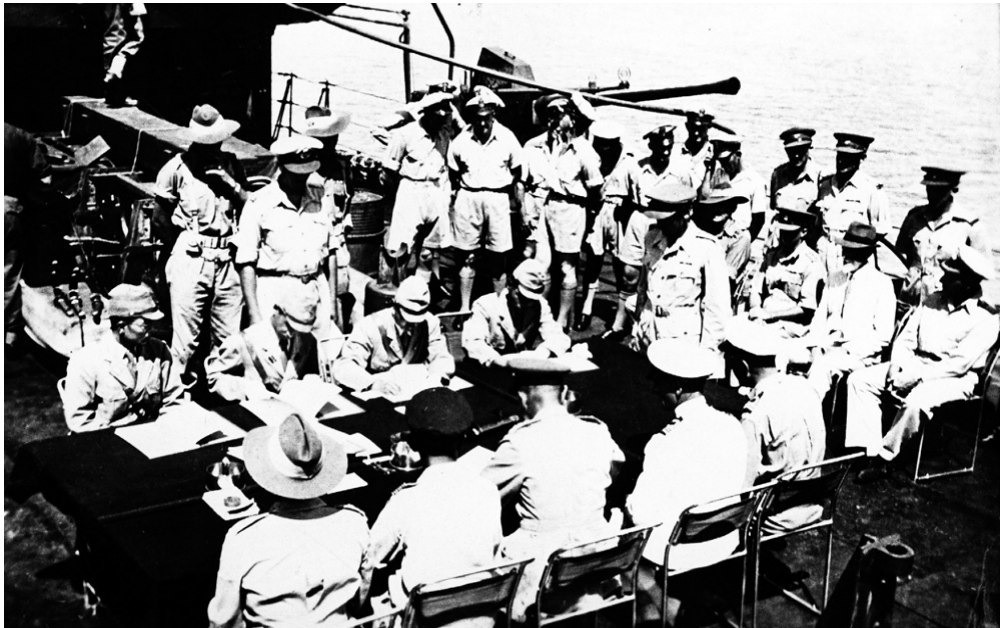
### **OPERATIONAL HISTORY – WORLD WAR II 1945-1946**

After commissioning, *Diamantina* sailed to Sydney, New South Wales, remaining there until late May when she embarked for New Guinea to complete her trials. These were concluded on June 1 1945 and by the end of the month she proceeded from Madang to Cairns, and then to the Solomon Islands. After transporting several high-ranking officers to Saposia Island, *Diamantina* became senior ship of eight (8) RAN vessels for the Bougainville Campaign, providing fire support to the Australian Army units operating ashore in July and August 1945. Transiting through the Solomon Islands, on July 7, she shelled Sohona Island and then a week later provided counter-battery fire against Japanese positions on Taiof Island. At the conclusion of hostilities she returned to the Solomon Islands in early September. The frigate carried Lieutenant General Kanda and Vice Admiral Baron Samejima, officers of the Japanese Imperial High Command to the surrender of Torokina on September 8, 1945. She was involved in the surrenders of Nauru on September 13 and Ocean Island on October 1, both ceremonies conducted on her quarterdeck.





Photo by Paul Coghlan – Courtesy of Maritime Museum



The Ocean Island surrender is signed onboard HMAS *Diamantina*

*Diamantina* returned to Sydney, arriving at Garden Island on December 13, 1945 with seventy-eight (78) passengers. The ship remained in Sydney until February 1, 1946, when she departed for a patrol in New Guinea waters. *Diamantina* returned to Sydney in mid-June and after sailing to Williamstown was paid off into reserve on August 9, 1946.

The ship was awarded the battle honour "Pacific 1945" for her wartime service.



## SECOND COMMISSIONING OCEANOGRAPHIC RESEARCH

### 1959 – 1969

At 11 AM on June 22, 1959, HMAS *Diamantina* was commissioned for the second time into the Royal Australian Navy. Lieutenant Commander B.D. Gordon assumed command in a ceremony that included Protestant and Roman Catholic chaplains blessing the ship alongside the Cruiser Wharf at Garden Island in Sydney.

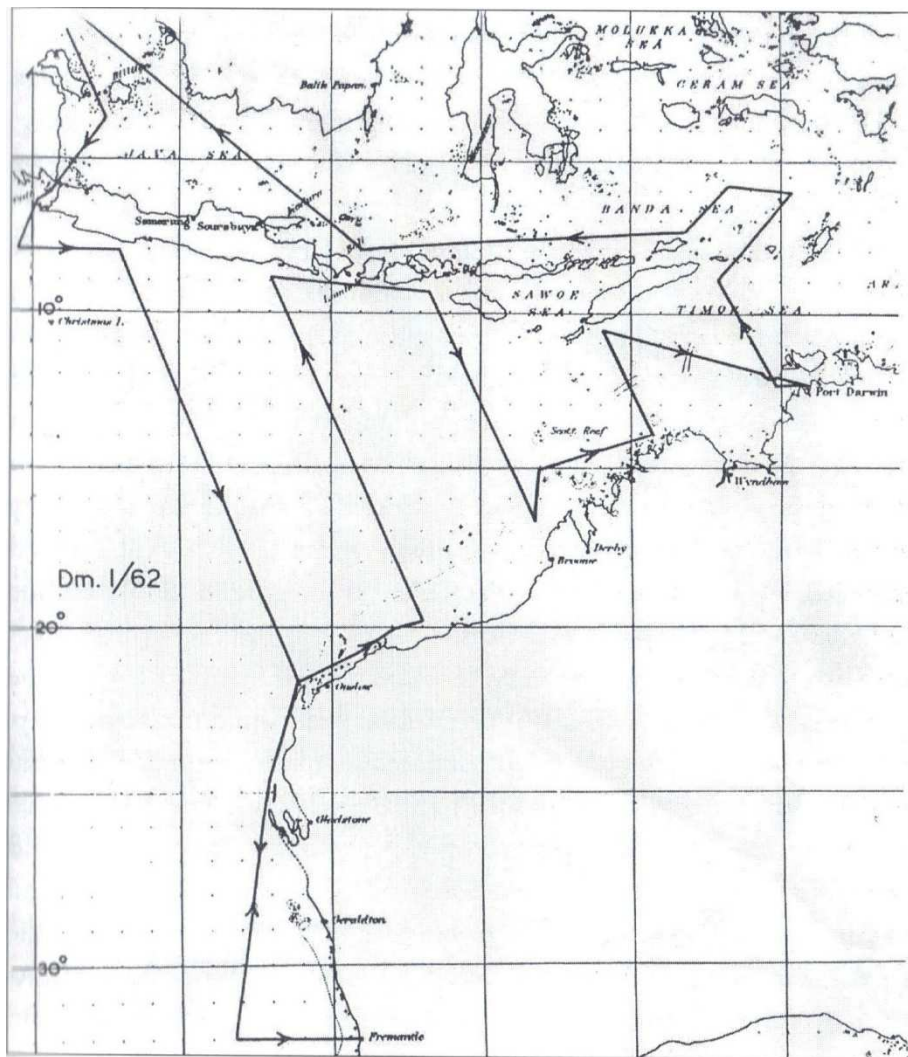


F377 soon after recommissioning with 4 inch gun on fore deck bandstand. (RAN)

The *Diamantina's* new role was to carry out oceanographic research. She was the first dedicated ship of the Royal Australian Navy for oceanographic research. She left Sydney on July 11, for Fremantle, West Australia, with the historic occasion of first oceanographic research readings being taken at 2300 fathoms east of Ulladulla, and with further readings enroute. Next voyage was from Fremantle to Geraldton, Onslow; Derby, Christmas and Cocos Island with bath thermograph readings enroute.

1960 involved a trip to the 'roaring forties' and 620 mile east of Cape Leeuwin. Soundings plunged from 2500 fathoms to 3400 fathoms to 4400 fathoms discovering the deepest water in the India Ocean to be known as "Diamantina Trench" or "Diamantina Fracture" Zone. The rest of the year was to Indonesia and Port Moresby and return via Christmas and Cocos Island which "*put Australia in the forefront of international research in the Indian Ocean*" {CSIRO Head of Hydrology Mr. D. Rockford}.

Plankton studies were carried out in 1961 as far north of Indonesia. Map below shows research voyage in 1962. The *Diamantina* was the major Australian participant in the International Ocean Expedition sponsored by UNESCO or the Scientific Committee for Oceanographic Research.



Cruise Dm1/62 track chart (CSIRO)

While annual voyages occurred north, 1965 involved ranging further west than ever before to investigate the Indian Ocean out to Mauritius.

Eight years after she had left to begin her second commission, *Diamantina* returned to Sydney on March 22, 1967 to operate mainly off Australian east and north coast as well as a survey trip to Fiji before returning to Fremantle.

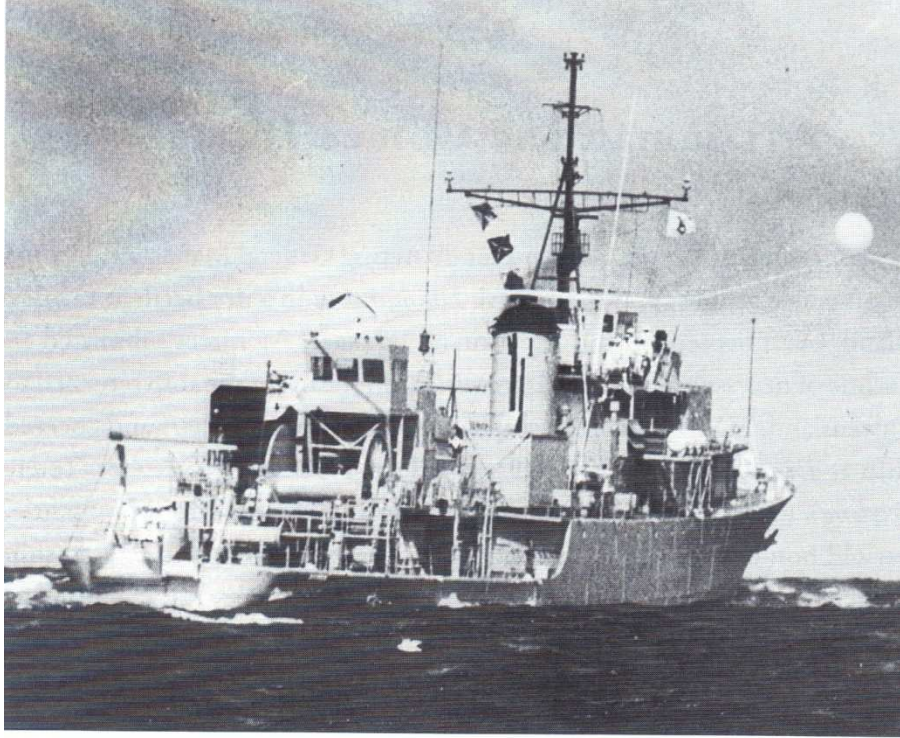
### 1970 -1979

In 1970, to prolong the life of the ship to at least 1975, a major refit was carried out at Williamstown Dockyard in Melbourne which included major overhaul of ship's engines, generators and boilers and improvements to research laboratory areas and accommodation.

The refit took 6 months after which, based in Fremantle, the ship resumed its research work in oceans around Australia as well as training cruises for navy personnel.

### **DIAMANTINA COMES HOME**

On October 9, 1979, with due ceremony involving Premier of West Australia (Sir Charles court), she left Fremantle for the last time for Garden Island, Sydney.



A helium balloon supports the paying off pennant as *Diamantina* departs Fremantle for the last time. The Western Australia anniversary flag flies from the starboard yard. Between the whip antennas and the 'elephant hut' the Boolee control cabin looms over its reel. (RAN)

The Navy's last World War II survivor paying off pennant had to be a compromise. Its length would have made it a hazard to not only other ships, but to low flying aircraft. It was limited to 100 metres supported by two helium balloons as it left Fremantle.

The last research programme was carried out by the ship in Broken Bay, New South Wales, between 12-19 November. Final Harbour cruise was held in Sydney Harbour on November 23, with 130 guests and included ship's first Commanding Officer Commander M.G. Rose RANR (RTD.) who spent most of his time on the bridge in the same captain's chair that Walkers Limited made to his specification 35 years before. The paying off pennant supported by six helium balloons had to be dipped passing under the Sydney Harbour Bridge.

On Leap Year Day, February 29, 1986, *Diamantina* was decommissioned and transferred to Active Reserve.



*“Too bloody good for razor blades”* and in the words of a former Commander, James Buchanan, *“fine and rare working example of a design which was the pinnacle of 160 years of development of steam engines at sea”*. Hence the remainder of the story!

On August 27, 1980 the Prime Minister, Mr Malcolm Fraser, announced the gift of *Diamantina* to the Queensland Maritime Association. The Queensland built ship named after Queensland’s Diamantina River which was named after the wife of the State’s first Governor), was going home. (Dual significance).

On October 1, 1980, the Museum President, and with the Navy Band playing, presented the ship’s last Navy Ensign to the Commander, Support Command Rear Admiral A.J Robertson. Flying the Red Ensign and Flags of Queensland and the Maritime Museum, a mixed RAN and Museum crew sailed the ship to Moreton Bay where Commander Rose joined the ship for a triumphant trip up the Brisbane River to South Brisbane Dry Dock. The ship was settled on blocks behind the closed caisson gate.

Less than 20 years later, the caisson gates failed, flooding the dock floating the ship up and down with the tide. A permanent fixed concrete gate was installed with *Diamantina* resting permanently on blocks at end of 2005, the 60<sup>th</sup> anniversary year of its commissioning.



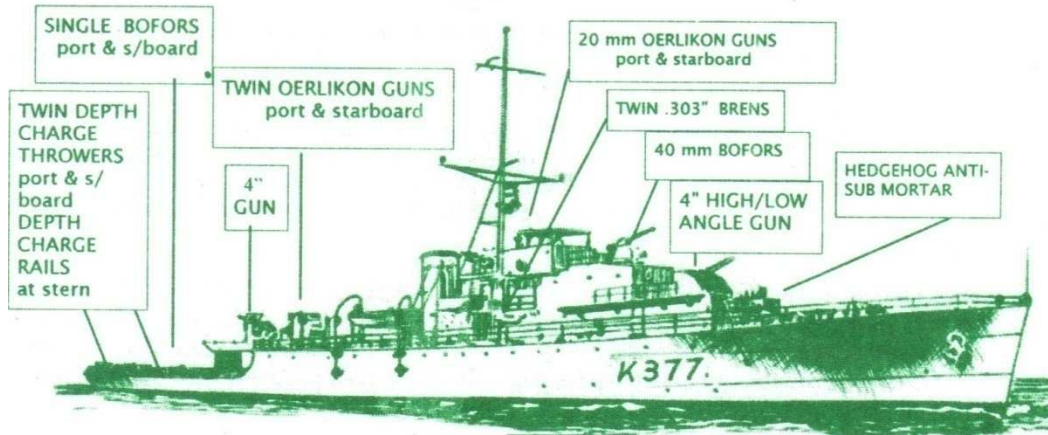
*The former HMAS Diamantina as a museum ship in Brisbane, Queensland.*

### **SIGNIFICANCE**

HMAS *DIAMANTINA* is well maintained by the voluntary staff of the Queensland Maritime Museum. It is permanently open for public inspection.

As one of the World’s last River Class Frigates and Australia’s largest World War II Navy veteran, she will continue to educate and inspire her visitors to honour and admire the skill of her builders and crew.

## APPENDIX I



DIAMANTINA - DESIGNED AS AN ANTI-SUBMARINE FRIGATE. LENGTH 92m BEAM 11.2m

### TECHNICAL DETAILS

|                       |  |
|-----------------------|--|
| Displacement:         | 1489 tons (standard)<br>2120 tons (full load)  |
| Length:               | 301' 6" (91.36m)   |
| Beam:                 | 36' 6" (11.06m)  |
| Draft:                | 12' 6" (3.6m)  |
| Speed:                | 20 knots   |
| Crew:                 | 140  |
| Propulsion Machinery: | 2 x 4 Cylinder Triple Expansion Engine of 2750 HP each.<br>Twin Screw.                                     |
| Guns:                 | Armament<br>2 x 4 inch guns<br>2 x 40mm Bofors   |
| Other Armament:       | 6 x 20mm Oorlikons<br>1 x Hedgehog<br>4 Depth Charge Throwers<br>2 Depth Charge Chutes<br>50 Depth Charges |

## **APPENDIX II**

### **SHIP'S COMMANDERS**

|  |                        |
|--|------------------------|
| Lieutenant Commander Maurice George ROSE, RANVR          | 27.4.1945 -22.11.1945  |
| Lieutenant Commander Philip Jack SULLIVAN, RANR (S)      | 22.11.1945 -07.7.1946  |
| Lieutenant Commander Bruce Dudley GORDON, RAN            | 22.6.1959 – 16.3.1960  |
| Lieutenant Commander George McCallum JUDE, RAN           | 16.3.1960 – 07.9.1961  |
| Lieutenant Commander John Gostyk YULE, RAN               | 07.9.1961 – 07.6.1963  |
| Lieutenant Commander Richard Bradford NUNN, RAN          | 07.6.1963–18.01.1964   |
| Lieutenant Commander Peter Edwin Mansfield HOLLOWAY, RAN | 18.01.1964– 8.6.1965   |
| Lieutenant Commander Peter George DUNCAN, RAN            | 8.6.1965 – 28.12.1966  |
| Lieutenant Commander Murray WARD, RAN                    | 28.12.1966 – 6.1.1969  |
| Lieutenant Commander James Ellis BUCHANAN RAN            | 6.1. 1969 –16.11.1970  |
| Lieutenant Commander Michael William VARLEY, RAN         | 16.11.1970–22.7.1972   |
| Lieutenant Commander Donald Montgomerie DAVIDSON, RAN    | 22.7.1972 – 03.9.1974  |
| Lieutenant Commander Philip Graham BROOK, RAN            | 03.9 1974 -14.12.1976  |
| Lieutenant Commander Peter John COOKE RUSSELL, RAN       | 14.12.1976 -27.10.1978 |
| Lieutenant Commander Robert James BURNS, RAN             | 27.10.1971 -04.1.1980  |
| Lieutenant Commander Rimaudas Adolfas DICIUNAS, RAN      | 14.01.1980 –29.2.1980  |

## **APPENDIX III**

### **OCEANOGRAPHIC RESEARCH**

#### ***Why Oceanographic research***

US Navy statement – “Experience to date indicates that almost any aspect of oceanography, physical, chemical, geological or biological, has some bearing on undersea warfare.”

Australian Weapons Research Establishment which operated on “*Diamantina*” stated in its 1967 Report that its research was “*aimed at and gathering a better understanding of the phenomena affecting undersea sound propagation over great distances.*”

In the August 1977 issue of the Australian Defence Magazine, *Triad*, Bruce Davies detailed “the importance of oceanography in assisting the RAN to improve its anti submarine warfare capability.” He listed the RAN objective in oceanographic research as including:-

- assisting the prediction of sonar performance in different areas;
- assisting in the design, selection, and tactical use of the RAN’s anti-submarine warfare equipment;
- Investigating energy exchange just above the sea surface to improve the detection of sea-skimming missiles.
- Facilitating such civilian oceanography aims as production of an oceanographic atlas, and study of oceanic resources and water masses.



## **APPENDIX IV**

### **WALKERS LIMITED**

The history of Walkers Limited dates back to 1864 when a small foundry was established in Ballarat, Victoria, to provide equipment for mining districts Ballarat, Clunes, Daylesford and Cresswell etc..

The partners observed strides being made in Queensland with the opening of the Gympie Goldfields and establishment of the sugar industry and in 1868 opened a branch in Maryborough. After early difficulties the branch prospered justifying the disposal of the Ballarat concern to concentrate activities in Maryborough. In 1888 the firm's name was changed from John Walker & Co. to Walkers Limited.

The firm continued to expand and covered practically every field of engineering manufacturing including ship building, boiler and plate work, sugar mills (machinery and buildings), mining machinery, locomotives and railway rolling stock, engines, pumping plant and refrigeration equipment.

#### **SUGAR MILLS**

Walkers Limited manufactured and erected sugar mills at Tully, Marian, Proserpine, Plane Creek, Bauple, Gin Gin, Isis and Maryborough, whilst practically every other mill in Queensland, New South Wales, Fiji and Natal (South Africa) are indebted to Walkers Limited for some portion of their plant.

#### **MINING**

Simultaneous with the volume of sugar industry work, the firm was in the front line of the mining industry equipment for mines in every state in Australia and as far afield as New Zealand and Strait's Settlement. Equipment included pit head gear, lifts and cages, rolling stock, crushing machinery and batteries, classifiers, cyanide and chlorination plants, engines and boilers.

#### **LOCOMOTIVES**

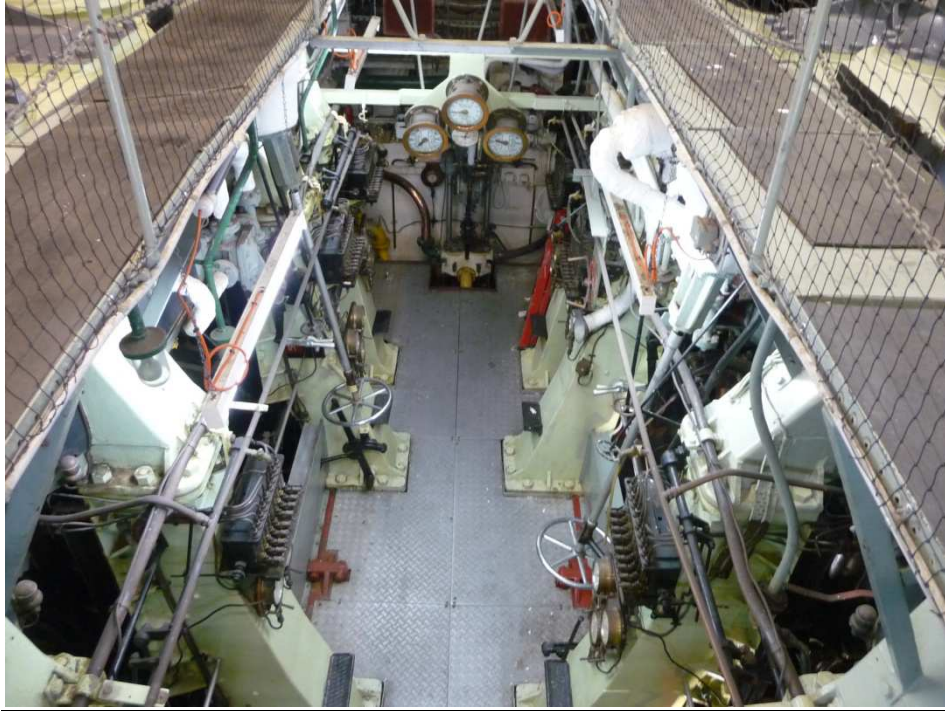
First big contract for locomotives was with the Queensland Government in 1896, and continually supplied locomotives to Queensland Railways as well as every state in Australia and the Commonwealth Government except New South Wales and West Australia.

#### **SHIP BUILDING**

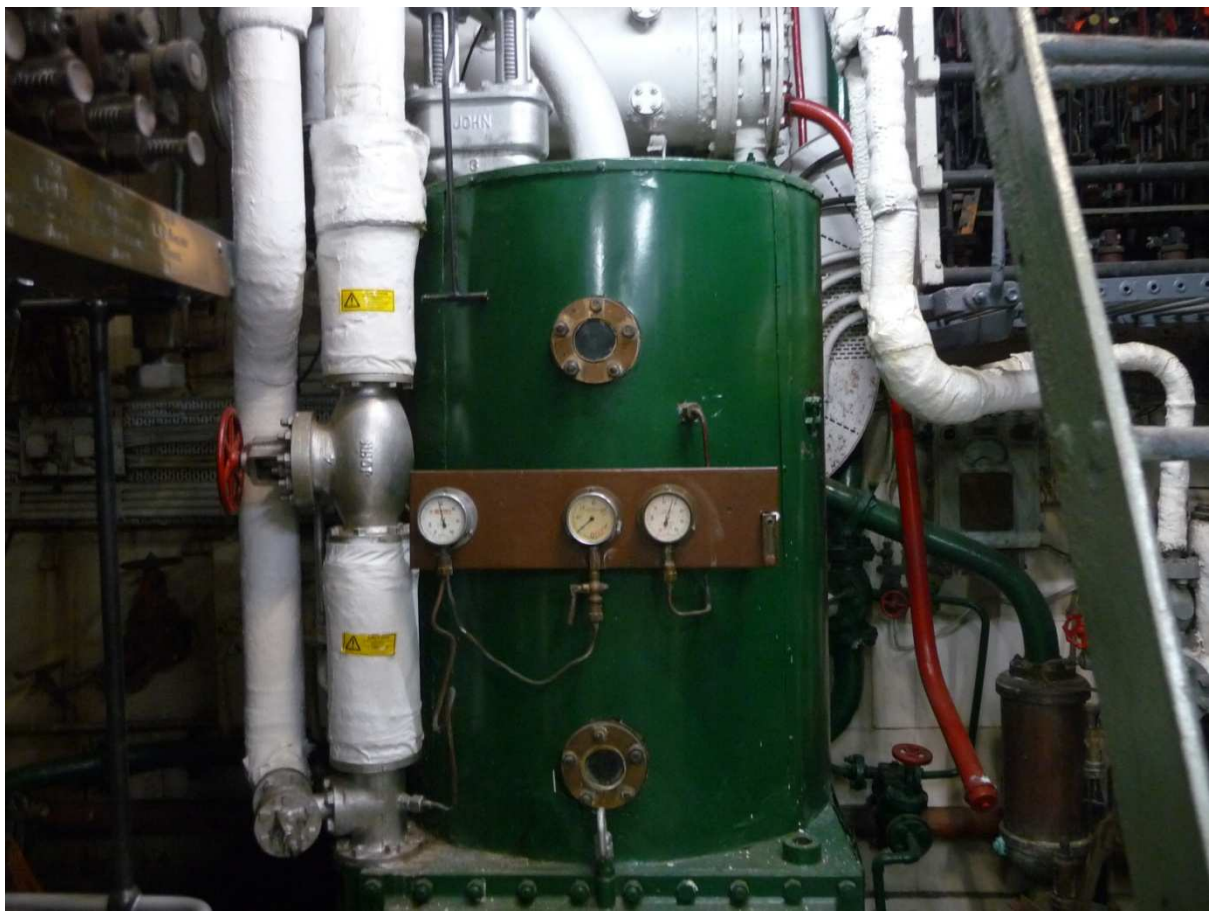
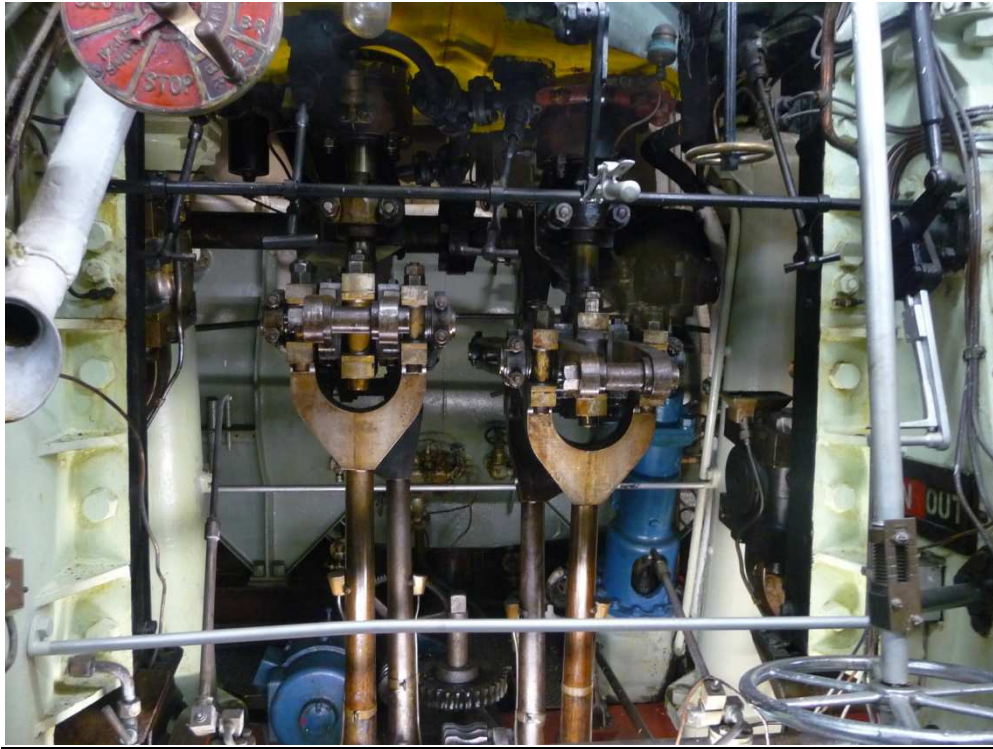
The ship yard was established in 1877 to build dredging plant for the Queensland Government. It also built two cargo 6,000 ton vessels for Commonwealth Government which were completed in 1923. After which the yard went silent.

Outbreak of war triggered the shipyard reopening commencing with building seven (7) Australian Minesweepers, viz. *Maryborough*, *Toowoomba*, *Rockhampton*, *Cairns*, *Tamworth*, *Bowen* and *Gladstone*. Three (3) River class Frigates were built for the Australian Navy commencing in mid 1942 with HMAS *Burdekin* followed by HMAS *Diamantina*, with HMAS *Shoalhaven* taking the water in December 1944.

**APPENDIX V**  
**ENGINE ROOM PHOTOS**







**Photos by Paul Coghlan  
Courtesy of Maritime Museum**

## ACCEPTANCE

**From:** Emma<CEO@maritimemuseum.com.au>  
**Sent:** Monday, 6 April 2020 3:45 PM  
**To:** Hinu Komene <HKomene@engineersaustralia.org.au>  
**Cc:** Steve <Ops@maritimemuseum.com.au>; Media<media@maritimemuseum.com.au>  
**Subject:** Re: Acceptance of Award Nomination: HMAS Diamantina

Hi Hinu,

Thanks for our conversation today. As agreed, Queensland Maritime Museum is happy to accept the heritage awards for both the HMAS Diamantina and the Dry Dock.

I look forward to working on the signage / panel in the future with you.

Kind regards,  
Emma

Emma Di Muzio

CEO

T: 07 3844 5361

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